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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,452	06/22/2006	Ryuichi Oota	1018775-000986	4156

21839 7590 05/01/2008
BUCHANAN, INGERSOLL & ROONEY PC
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EXAMINER	
MORRISON, THOMAS A	

ART UNIT	PAPER NUMBER
3653	

NOTIFICATION DATE	DELIVERY MODE
05/01/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/584,452	OOTA ET AL.	
	Examiner	Art Unit	
	THOMAS A. MORRISON	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/28/2008 has been entered.

Drawings

2. The drawing was received on 3/28/2008. This drawing is accepted.

Claim Objections

3. Claim 5 is objected to because of the following informalities: (1) "a front edge" in line 22 of claim 5 should be -- the front edge --. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fig. 4 of the instant application and page 2, line 23 to page 3, line 21 of the specification of the instant application in view of Japanese Publication No. 64-53948

(hereinafter "JP'948"). Fig. 4 of the instant application and page 2, line 23 to page 3, line 21 of the instant application are being treated as admitted prior art.

Regarding claim 1, Fig. 4 and page 2, line 23 to page 3, line 21 of the instant application disclose a sheet feeder (Fig. 4) having an upstream side and a downstream side, the sheet feeder comprising:

a suction carrier (2) that sucks an uppermost sheet of sheets piled up and carries the uppermost sheet from the upstream side to the downstream side in a carrying direction (i.e., from right to left in Fig. 4);

an oblique carrier (3) that carries a sheet, wherein the oblique carrier (3) is located downstream of the suction carrier (2), wherein the oblique carrier (3) carries the sheet slantingly toward a guide wall (31) in order to position an edge of the sheet along the guide wall (31) (see e.g., page 3 lines 7-10 of the instant application), and wherein the oblique carrier (3) carries the sheet downstream in the carrying direction; and

a handling member (4) for allowing only the uppermost sheet carried by the suction carrier (2) to pass the handling member (4),

wherein the sheet feeder (Fig. 4) separates sheets one by one from the sheets piled up on a sheet feeding table (11) and then carries the sheets. Fig. 4 and page 2, line 23 to page 3, line 21 of the instant application disclose all of the limitations of claim 1, except for a detector and a retracting mechanism, as claimed.

JP'948 discloses that it is well known to provide a sheet feeder (Figs. 1-2 and 8a-8c) with a handling member (including 120) for allowing only an uppermost sheet carried by a carrier (including 101) to pass the handling member (including 120); a

detector (SE3 in Fig. 2) for detecting a front edge of the sheet and a rear edge of the sheet which has passed the handling member and has been put on another carrier, wherein the detector (SE3) is located downstream of the handling member (including 120); and a retracting mechanism (i.e., whatever structure retracts element 120 in Figs. 8a-8c) for retracting the handling member away from an operative position adjacent the sheet passing the handling member when the detector detects the front edge of the sheet, and returning the handling member to the operative position when the detector detects the rear edge of the sheet after the detector detects a front edge of the sheet while the detector detects the sheet passing through. The English Abstract of JP'948 explains that the arrangement shown in JP'948 surely prevents the double feeding of sheets of paper via detecting the sheet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of Fig. 4 of the instant application with a detector, wherein the detector is located downstream of the handling member (4) of Fig. 4 of the instant application; and a retracting mechanism for retracting the handling member (4) of Fig. 4 and returning the handling member (4), for the purpose of surely preventing double feeding of sheets of paper, as taught by JP'948.

Regarding the recitation "a detector **for detecting a front edge of the sheet and a rear edge of the sheet which has passed the handling member and has been put on another carrier**" in claim 1, the bolded portion of this recitation is a statement of intended use that does not define this recitation over the prior art apparatus of Fig. 4 of the instant application, as modified by JP'948. (emphasis added). More specifically,

the detector does not actually have to detect the front and rear edges of the sheet, since this is merely a statement of intended use of the detector.

In any event, it is noted that the English Abstract of JP'948 discloses that the detector (SE3) actually can detect the front and rear edges of the sheet, as claimed.

Regarding the recitation "a retracting mechanism for **retracting the handling member away from an operative position adjacent the sheet passing the handling member <u>when</u> the detector detects the front edge of the sheet, and returning the handling member to the operative position <u>when</u> the detector detects the rear edge of the sheet after the detector detects a front edge of the sheet while the detector detects the sheet passing through**", the bolded portion of this recitation contains "conditional limitations" that need not ever occur. (emphasis added). As mentioned above, the recited detector does not actually have to detect the front and rear edges of the sheet. Rather, this is a statement of intended use of the detector. With regard to the recited "retracting mechanism", if the detector never detects the front edge of the sheet, the retracting mechanism need not retract the handling member. Similarly, if the detector never detects the rear edge of the sheet, the retracting mechanism need not return the handling member. In other words, the "retracting mechanism" limitation does not distinguish claim 1 from the prior art apparatus of Fig. 4 of the instant application, as modified by JP'948, because of the "conditional limitations" that need not ever occur. Thus, this combination of references meets the limitations of claim 1 as now amended.

Alternatively, it is noted that in the recitation "a retracting mechanism **for retracting the handling member away from an operative position adjacent the sheet passing the handling member when the detector detects the front edge of the sheet, and returning the handling member to the operative position when the detector detects the rear edge of the sheet after the detector detects a front edge of the sheet while the detector detects the sheet passing through**", the entire bolded portion after the term "for" can be considered "intended use". (emphasis added). In other words, the recited retracting mechanism does not actually have to retract and return the handling member. Rather, this is a statement of intended use of the retracting mechanism that does not distinguish the retracting mechanism limitation from the prior art apparatus of Fig. 4 of the instant application, as modified by JP'948. Thus, this combination of references meets the limitations of claim 1 as now amended.

Regarding claim 2, Figs. 8a-8c and the English Abstract of JP'948 disclose that the retracting mechanism (i.e., whatever structure retracts the handling member in Figs. 8a-8c of JP'948) holds the handling member away from the sheet every time the sheet is detected by the detector (SE3).

Regarding claims 3 and 4, the English Abstract of JP'948 discloses that the retracting mechanism (i.e., whatever structure retracts the handling member in Figs. 8a-8c of JP'948) holds the handling member away from the sheet for the entire time that the detector (SE3) detects the sheet. More specifically, such retracting mechanism holds the handling member away from the sheet for the entire time that the detector

(SE3) detects the rear edge of the sheet. This meets the limitations of claims 3 and 4 as now amended.

Regarding claim 5, Fig. 4 and page 2, line 23 to page 3, line 21 of the instant application disclose a sheet feeder (Fig. 4) having an upstream side and a downstream side, wherein the sheet feeder (Fig. 4) separates sheets one by one from sheets piled up on a sheet feeding table (11) and then carries the sheets, the sheet feeder (Fig. 4) comprising:

a pickup carrier (2) that picks up an uppermost sheet of sheets piled up and carries the uppermost sheet from the upstream side to the downstream side in a carrying direction (i.e., from right to left in Fig. 4);

an oblique carrier (3) that carries a sheet on the oblique carrier (3), wherein the oblique carrier (3) is located downstream of the pickup carrier (2), wherein the oblique carrier (3) carries the sheet slantingly toward a guide wall (31) in order to position an edge of the sheet along the guide wall (31) (see e.g., page 3 lines 7-10 of the instant application), and wherein the oblique carrier (3) carries the sheet downstream in the carrying direction; and

a handling member (4) for allowing only the uppermost sheet carried by the pickup carrier (2) to pass the handling member (4). Fig. 4 and page 2, line 23 to page 3, line 21 of the instant application disclose all of the limitations of claim 5, except for a detector and a retracting mechanism, as claimed.

JP'948 discloses that it is well known to provide a sheet feeder (Figs. 1-2 and 8a-8c) with a handling member (including 120) for allowing only an uppermost sheet

carried by a carrier (including 101) to pass the handling member (including 120); a detector (SE3 in Fig. 2) for detecting a presence (e.g., the front or rear edge) of a sheet which has passed the handling member (including 120) and has been put on another carrier (130), wherein the detector (SE3) is located downstream of the handling member (including 120); and a retracting mechanism (i.e., whatever structure retracts element 120 in Figs. 8a-8c) for holding the handling member away from an operative position adjacent the sheet passing the handling member when the detector detects a front edge of the sheet, and returning the handling member to the operative position when the detector detects a rear edge of the sheet after the detector detects a front edge of the sheet. The English Abstract of JP'948 explains that the arrangement shown in JP'948 surely prevents the double feeding of sheets of paper via detecting the sheet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of Fig. 4 of the instant application with a detector, wherein the detector is located downstream of the handling member (4) of Fig. 4 of the instant application; and a retracting mechanism for retracting the handling member (4) of Fig. 4 and returning the handling member (4), for the purpose of surely preventing double feeding of sheets of paper, as taught by JP'948.

Regarding the recitation "a detector **for detecting a presence of a sheet which has passed the handling member and has been put on another carrier**" in claim 5, the bolded portion of this recitation is a statement of intended use that does not define the detector limitation over the prior art apparatus of Fig. 4 of the instant application, as modified by JP'948. (emphasis added). More specifically, the detector does not

actually have to detect the presence of the sheet, since this is merely a statement of intended use of the detector.

In any event, it is noted that the English Abstract of JP'948 discloses that the detector (SE3) actually can detect a presence (e.g., the front or rear edge) of a sheet which has passed the handling member (including 120) and has been put on another carrier (130), as claimed

Regarding the recitation "a retracting mechanism for **holding the handling member away from an operative position adjacent the sheet passing the handling member when the detector detects a front edge of the sheet, and returning the handling member to the operative position when the detector detects a rear edge of the sheet after the detector detects a front edge of the sheet**", the bolded portion of this recitation contains "conditional limitations" that need not ever occur. (emphasis added). As mentioned above, the recited detector does not actually have to detect the presence of the sheet. Rather, this is a statement of intended use of the detector. With regard to the recited "retracting mechanism", if the detector never detects the front edge of the sheet, the retracting mechanism need not be held away from an operative position. Similarly, if the detector never detects the rear edge of the sheet, the retracting mechanism need not return the handling member to the operative position. In other words, the "retracting mechanism" limitation does not distinguish claim 5 from the prior art apparatus of Fig. 4 of the instant application, as modified by JP'948, because of the "conditional limitations" that need not ever occur. Thus, this combination of references meets the limitations of claim 5 as now amended.

Alternatively, it is noted that in the recitation "a retracting mechanism **for holding the handling member away from an operative position adjacent the sheet passing the handling member when the detector detects a front edge of the sheet, and returning the handling member to the operative position when the detector detects a rear edge of the sheet after the detector detects a front edge of the sheet**", the entire bolded portion after the term "for" can be considered "intended use". (emphasis added). In other words, the recited retracting mechanism does not actually have to hold the handling member away and return the handling member. Rather, this is a statement of intended use of the retracting mechanism that does not distinguish the retracting mechanism limitation from the prior art apparatus of Fig. 4 of the instant application, as modified by JP'948. Thus, this combination of references meets the limitations of claim 5 as now amended.

Response to Arguments

5. Applicant's arguments filed 3/28/2008 have been fully considered but they are not persuasive.

Applicant argues

> In response to the rejection, claims 1 and 5 have been amended to more clearly define the retracting mechanism as retracting the handling member away from an operative position adjacent the sheet passing the handling member when the detector detects the front edge of the sheet, and returning the handling member to the operative position when the detector detects a rear edge of the sheet after the detector detects a front edge of the sheet. Applicants submit that JP '948 does not overcome the admitted deficiency of Figure 4.
> In the English Abstract of JP '948, there is mention of "as the rear end of the first sheet of paper is detected by the sensor SE3, the handling pad 120 is separated from the belt 101..." And, at lines 1-3, upper-right column of page 7 of JP '948, it states that: "After the rear edge of the first sheet P1

> goes through the sheet re-feeder part 100 and is detected by the sensor SE3, the handling pad 120 is separated from the sheet re-feeder belt 101" Accordingly, in JP '948, after the first sheet is conveyed, the handling pad 120 is separated (retracted away from an operative position) from the conveying belt in order not to convey the second sheet. Thus, when the rear edge of the sheet is detected, the pad 120 is moved into an inoperative position.
> On the other hand, in the present invention, the handling member is retracted away from the sheet while the sheet is conveyed and is moved back to the operative position upon detection of the rear end of the sheet. That is the opposite of the present invention. Accordingly, claims 1 and 5, and dependent claims 2 - 4, are patentable over the applied art.
> Therefore, the operation of the retracting mechanism of the present invention is different from that of JP 64-53948A.
> The Examiner is thus respectfully requested to reconsider and withdraw the rejections.

Regarding the recitation "a retracting mechanism for **retracting the handling member away from an operative position adjacent the sheet passing the handling member <u>when</u> the detector detects the front edge of the sheet, and returning the handling member to the operative position <u>when</u> the detector detects the rear edge of the sheet after the detector detects a front edge of the sheet while the detector detects the sheet passing through**" in claim 1, the bolded portion of this recitation contains "conditional limitations" that need not ever occur. (emphasis added). As mentioned above in the rejection of claim 1, the recited detector does not actually have to detect the front and rear edges of the sheet. Rather, this is a statement of intended use of the detector. With regard to the recited "retracting mechanism", if the detector never detects the front edge of the sheet, the retracting mechanism need not retract the handling member. Similarly, if the detector never detects the rear edge of the sheet, the retracting mechanism need not return the handling member. In other

words, the "retracting mechanism" limitation does not distinguish claim 1 from the prior art apparatus of Fig. 4 of the instant application, as modified by JP'948, because of the "conditional limitations" that need not ever occur. Thus, this combination of references meets the limitations of claim 1 as now amended.

Alternatively, it is noted that in the recitation "a retracting mechanism **for retracting the handling member away from an operative position adjacent the sheet passing the handling member when the detector detects the front edge of the sheet, and returning the handling member to the operative position when the detector detects the rear edge of the sheet after the detector detects a front edge of the sheet while the detector detects the sheet passing through**", the entire bolded portion after the term "for" can be considered "intended use". (emphasis added). In other words, the recited retracting mechanism does not actually have to retract and return the handling member. Rather, this is a statement of intended use of the retracting mechanism that does not distinguish the retracting mechanism limitation from the prior art apparatus of Fig. 4 of the instant application, as modified by JP'948. Thus, this combination of references meets the limitations of claim 1 as now amended.

Regarding the recitation "a retracting mechanism for **holding the handling member away from an operative position adjacent the sheet passing the handling member when the detector detects a front edge of the sheet, and returning the handling member to the operative position when the detector detects a rear edge of the sheet after the detector detects a front edge of the sheet**" in claim 5, the bolded portion of this recitation contains "conditional limitations" that need not ever

occur. (emphasis added). As mentioned above in the rejection of claim 5, the recited detector does not actually have to detect the presence of the sheet. Rather, this is a statement of intended use of the detector. With regard to the recited "retracting mechanism", if the detector never detects the front edge of the sheet, the retracting mechanism need not be held away from an operative position. Similarly, if the detector never detects the rear edge of the sheet, the retracting mechanism need not return the handling member to the operative position. In other words, the "retracting mechanism" limitation does not distinguish claim 5 from the prior art apparatus of Fig. 4 of the instant application, as modified by JP'948, because of the "conditional limitations" that need not ever occur. Thus, this combination of references meets the limitations of claim 5 as now amended.

Alternatively, it is noted that in the recitation "a retracting mechanism **for holding the handling member away from an operative position adjacent the sheet passing the handling member when the detector detects a front edge of the sheet, and returning the handling member to the operative position when the detector detects a rear edge of the sheet after the detector detects a front edge of the sheet**", the entire bolded portion after the term "for" can be considered "intended use". (emphasis added). In other words, the recited retracting mechanism does not actually have to hold the handling member away and return the handling member. Rather, this is a statement of intended use of the retracting mechanism that does not distinguish the retracting mechanism limitation from the prior art apparatus of Fig. 4 of the instant

application, as modified by JP'948. Thus, this combination of references meets the limitations of claim 5 as now amended.

Applicant is welcome to contact the examiner to try to work out some language to try to overcome the prior art of record.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick H. Mackey/
Supervisory Patent Examiner, Art Unit 3653

4/23/2008